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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,835	07/12/2001	Tomlinson G. Rauscher	DIGI9	2185

7590 09/13/2004

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EXAMINER	
LOHN, JOSHUA A	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,835	RAUSCHER, TOMLINSON G.	
	Examiner	Art Unit	
	Joshua A Lohn	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Griffith et al., United States Patent number 6,401,170, filed August 18, 1999.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claim 1, Griffith discloses a RAID data storage system that includes greater than one controller (Griffith, col. 10, lines 1-2), a multiplicity of direct access storage devices (Griffith, col. 5, lines 23-27), the direct access storage devices arranged in one or more channels (Griffith, col. 5, lines 16-22), and each channel comprising a multiplicity of direct access storage devices (Griffith, col. 5, lines 16-27). It is inherent in the existence of a direct access storage device in Griffith that it is mounted in some form of chassis to enable functionality. Griffith discloses having each controller electrically connected to each direct access storage device of

each channel by a connector (Griffith, col. 7, line 53 through col. 8, line 13, and figure 4). Griffith does not directly disclose each controller having a backplane component electrically connected to the electronic components of the controller and the backplane of each controller a component of only one controller, however it is interpreted from figure 4 that the connectors on each controller that allow a wire to run from the connectors, elements 231, 233, 331, 333, act as the backplane for each controller. Griffith does not directly disclose each chassis of direct access storage devices having a backplane component electrically connected to each of the direct access storage devices by a connector, and the backplane of each channel of direct access storage devices a component of only one channel of direct access storage devices, however it is interpreted from figure 4 that the line running the length of each channel linking the DASDs to the connectors, elements 231, 233, 331, 333, act as the backplane for each of the DASDs.

As per claim 2, Griffith discloses that the connector is a wire, copper wire, cable, optical fiber, or a SCSI bus (Griffith, col. 8, line 49).

As per claim 3, Griffith discloses that the connector is a cable (Griffith, col. 8, line 49, where fiber optics and copper wire are interpreted to be types of cable).

As per claim 4, Griffith discloses that the direct access storage device is a tape, a disk, or a CD (Griffith, col. 5, lines 14-15).

As per claim 5, Griffith discloses that the direct access storage device is a disk (Griffith, col. 5, line 15).

As per claim 6, Griffith discloses that each disk is dual-ported (Griffith, col. 8, lines 38-40).

As per claim 14, Griffith discloses a RAID data storage system that includes a first and a second controller (Griffith, col. 10, lines 1-2), two or more channels of dual-ported disks (Griffith, col. 5, lines 16-27 and col. 8, lines 38-40), and each channel comprising five dual-ported disks (Griffith, col. 5, lines 16-27). Griffith does not directly disclose each controller having a backplane component electrically connected to the electronic components of the controller, however it is interpreted from figure 4 that the connectors on each controller that allow a wire to run from the connectors, elements 231, 233, 331, 333, act as the backplane for each controller. Griffith does not directly disclose each channel of disks having a backplane component electrically connected to each of the disks, however it is interpreted from figure 4 that the line running the length of each channel linking the DASDs to the connectors, elements 231, 233, 331, 333, act as the backplane for each of the DASDs. Griffith discloses a separate cable attaching each disk in a channel to a controller (Griffith, col. 7, line 53 through col. 8, line 13, and figure 4). Griffith discloses a first port of each disk electrically connected to the first controller, and a second port of each disk electrically connected to the second controller (Griffith, col. 7, line 53 through col. 8, line 13, and figure 4). Griffith discloses that the backplane of each controller is a component of only one controller, and the backplane of each channel of disks is a component of only one channel of disks, this is shown in figure 4 in view of the definition of the backplanes provided above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-11 and 15-25 are rejected under 35 U.S.C. 103(a) as being obvious over Griffith in view of Espy et al., United States Patent number 5,890,214, published March 30, 1999.

The applied reference of Griffith has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

As per claim 7, Griffith discloses a controller, however he fails to disclose a power supply component and a cooling system component for each controller chassis, each power supply and cooling system a component of only one controller chassis.

Espy discloses a power supply component and a cooling system component (Espy, figure 1, element 14) for each controller chassis (Espy, figure 1, element 110), each power supply and cooling system a component of only one controller chassis (Espy, figure 1, and col. 4, lines 10-22).

It would have been obvious to one skilled in the art at the time of the invention to include the power supply components and cooling system of Espy in the RAID system disclosed by Griffith.

This would have been obvious because Griffith discloses the general existence of controllers and DASDs (Griffith, col. 8, lines 38-42), as well as the related connections (Griffith, figure 4). Griffith however fails to disclose enough details on how the physical structure and connections of the devices should be implemented. Espy discloses that disk arrays, such as those used by Griffith, are typically housed in a chassis and can include disk controllers (Espy, col. 1, lines 34-55). It would have been obvious for Griffith to use similar chassis to those taught by Espy to house the system components because this is how a common disk array is typically implemented and it would provide compatibility with generic, standard system components.

As per claim 8, Griffith discloses direct access storage devices. Griffith fails to disclose a power supply and a cooling system component for each chassis of direct access storage devices,

each power supply and cooling system a component of only one chassis of direct access storage devices.

Espy discloses a power supply and a cooling system component for each chassis of direct access storage devices, each power supply and cooling system a component of only one chassis of direct access storage devices (Espy, figure 1, and col. 4, lines 10-22).

It would have been obvious to one skilled in the art at the time of the invention to include the power supply components and cooling system of Espy in the RAID system disclosed by Griffith.

This would have been obvious because Griffith discloses the general existence of controllers and DASDs (Griffith, col. 8, lines 38-42), as well as the related connections (Griffith, figure 4). Griffith however fails to disclose enough details on how the physical structure and connections of the devices should be implemented. Espy discloses that disk arrays, such as those used by Griffith, are typically housed in a chassis and can include disk controllers (Espy, col. 1, lines 34-55). It would have been obvious for Griffith to use similar chassis to those taught by Espy to house the system components because this is how a common disk array is typically implemented and it would provide compatibility with generic, standard system components.

As per claim 9, Griffith discloses the controllers, but fails to detail the existence of a dedicated chassis for each controller.

Espy discloses a chassis for a disk controller that presides over an array, this controller chassis having mounted in it only one controller (Espy, col. 5, lines 52-56).

It would have been obvious to one skilled in the art at the time of the invention to include this chassis of Espy in the system of Griffith.

This would have been obvious because Griffith discloses a desire to use a standard, off-the-shelf RAID controller (Griffith, col. 8, lines 40-42). Any typical controller such as that used by Griffith would obviously benefit from being implemented in a typical situation in which no special considerations would be necessary for interoperability. Espy discloses a system that utilizes the typical chassis system for housing the array and controllers (Espy, col. 1, liens 34-55). It is obviously beneficial to use a typical layout to allow easier implementation.

As per claim 10, Griffith discloses a channel of direct access storage devices, he fails to disclose how they are mounted within a chassis.

Espy discloses a chassis for mounting an array, or channel, of storage devices in a single chassis, the channel chassis having mounted in it only one channel of direct access storage devices, where the channel is the loop of storage devices (Espy, col. 5, lines 59-60).

It would have been obvious to one skilled in the art at the time of the invention to use the chassis of Espy in the system of Griffith.

This would have been obvious because Griffith discloses a desire to use standard, off-the-shelf storage devices (Griffith, col. 8, lines 38-39). Any typical storage devices such as those used by Griffith would obviously benefit from being implemented in a typical situation in which no special considerations would be necessary for interoperability. Espy discloses a system that utilizes the typical chassis system for housing the storage array and controllers (Espy, col. 1,

liens 34-55). It is obviously beneficial to use a typical layout to allow easier implementation.

As per claim 11, Griffith discloses a channel of direct access storage devices, he fails to disclose how they are mounted within a chassis.

Espy discloses a mounting an array of storage devices in a loop that acts as the channel of Griffith, where the channel of storage devices is mounted on more than one chassis (Espy, col. 5, lines 59-62).

It would have been obvious to one skilled in the art at the time of the invention to use the chassis layout of Espy in the system of Griffith.

This would have been obvious because Griffith discloses a desire to use standard, off-the-shelf storage devices (Griffith, col. 8, lines 38-39). Any typical storage devices such as those used by Griffith would obviously benefit from being implemented in a typical situation in which no special considerations would be necessary for interoperability. Espy discloses a system that utilizes the typical chassis system for housing the storage array and controllers (Espy, col. 1, liens 34-55). It is obviously beneficial to use a typical layout to allow easier implementation.

As per claim 15, Griffith discloses a RAID system including greater than one controller modules, each controller module comprising a controller (Griffith, col. 10, lines 1-2). Griffith does not explicitly disclose the controller module having a backplane, however it is interpreted from figure 4 that the connectors on each controller that allow a wire to run from the connectors, elements 231, 233, 331, 333, act as the backplane for each controller. Griffith discloses a multiplicity of direct access storage device modules, each direct access storage device module

comprising a multiplicity of direct access storage devices (Griffith, col. 5, lines 23-27). Griffith does not explicitly disclose the direct access storage device modules having a backplane, however access storage devices a component of only one channel of direct access storage devices, however it is interpreted from figure 4 that the line running the length of each channel linking the DASDs to the connectors, elements 231, 233, 331, 333, act as the backplane for each of the DASDs. Griffith discloses each controller module electrically connected by a connector module to each direct access storage device module (Griffith, col. 7, line 53 through col. 8, line 13, and figure 4), and the RAID data storage system capable of function despite the failure of any one module (Griffith, col. 2, lines 39-47). Griffith fails to disclose the controller module and direct access storage device modules having a power supply and cooling system.

Espy discloses each module of a disk array, including controller and storage device modules, includes a power supply and a cooling system (Espy, col. 4, lines 10-22, and figure 1).

It would have been obvious to one skilled in the art at the time of the invention to include the power supply components and cooling system of Espy in the RAID system disclosed by Griffith.

This would have been obvious because Griffith discloses the general existence of controllers and DASDs (Griffith, col. 8, lines 38-42), as well as the related connections (Griffith, figure 4). Griffith however fails to disclose enough details on how the physical structure and connections of the devices should be implemented. Espy discloses that disk arrays, such as those used by Griffith, are typically housed in a chassis and can include disk controllers (Espy, col. 1, lines 34-55). It would have been obvious for Griffith to use similar chassis to those taught by

Espy to house the system components because this is how a common disk array is typically implemented and it would provide compatibility with generic, standard system components.

As per claim 16, Griffith discloses a RAID data storage system including greater than one controller (Griffith, col. 10, lines 1-2), a multiplicity of direct access storage devices (Griffith, col. 5, lines 23-27), the direct access storage devices arranged in one or more channels (Griffith, col. 5, lines 16-22), each channel comprising a multiplicity of direct access storage devices (Griffith, col. 5, lines 16-27), and each controller electrically connected to each direct access storage device of each channel by a connector (Griffith, col. 7, line 53 through col. 8, line 13, and figure 4). Griffith fails to explicitly disclose the existence of a chassis for each controller and for the storage devices.

Espy discloses a chassis for a disk controller that presides over an array, this controller chassis having mounted in it only one controller (Espy, col. 5, lines 52-56). Espy discloses a mounting an array of storage devices in a loop that acts as the channel of Griffith, where the channel of storage devices is mounted on one or more than one chassis (Espy, col. 5, lines 59-62).

It would have been obvious to one skilled in the art at the time of the invention to include this chassis of Espy in the system of Griffith.

This would have been obvious because Griffith discloses a desire to use a standard, off-the-shelf RAID controller and direct access storage devices (Griffith, col. 8, lines 38-42). Any typical controller or storage device, such as that used by Griffith, would obviously benefit from being implemented in a typical situation in which no special considerations would be necessary

for interoperability. Espy discloses a system that utilizes the typical chassis system for housing the array and controllers (Espy, col. 1, liens 34-55). It is obviously beneficial to use a typical layout to allow easier implementation.

As per claim 17, Griffith discloses that the connector is a wire, copper wire, cable, optical fiber, or a SCSI bus (Griffith, col. 8, line 49).

As per claim 18, Griffith discloses that the connector is a cable (Griffith, col. 8, line 49, where the fiber optic and copper wire connectors are types of cable).

As per claim 19, Griffith discloses that the direct access storage device is a tape, a disk, or a CD (Griffith, col. 5, lines 14-15).

As per claim 20, Griffith discloses that the direct access storage device is a disk (Griffith, col. 5, lien 15).

As per claim 21, Griffith discloses that each disk is dual-ported (Griffith, col. 8, lines 38-40).

As per claim 22, Espy discloses a power supply component and a cooling system component (Espy, figure 1, element 14) for each controller chassis (Espy, figure 1, element 110), each power supply and cooling system a component of only one controller chassis (Espy, figure 1, and col. 4, lines 10-22).

As per claim 23, Espy discloses a power supply and a cooling system component for each chassis of direct access storage devices, each power supply and cooling system a component of only one chassis of direct access storage devices (Espy, figure 1, and col. 4, lines 10-22).

As per claim 24, Espy discloses a chassis for mounting an array, or channel, of storage devices in a single chassis (Espy, col. 5, lines 59-60).

As per claim 25, Espy discloses a mounting an array of storage devices in a loop that acts as the channel of Griffith, where the channel of storage devices is mounted on more than one chassis (Espy, col. 5, lines 59-62).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith, in view of Ridge, P. M., "The book of SCSI: A guide for Adventurers.", published 1995. As per claim 12, Griffith discloses the use of tiers to stripe data across the channels (Griffith, col. 15, lines 28-32). Griffith does not disclose this strip of data including parity information.

Ridge discloses a RAID-5 system in which data parity groups that are extended across a stripe including multiple disks so that each drive is responsible for a different data bit of the parity group (Ridge, p. 328, first paragraph).

It would have been to one skilled in the art at the time of the invention to implement the RAID-5 system of Ridge and it's associated parity bits in the tiered stripes of the RAID system of Griffith.

This would have been obvious because Griffith teaches of a RAID system with a preferred number of disks being 5 (Griffith, col. 5, lines 23-35). Ridge discloses that the RAID-5 system preferably uses 5 disks and is useful in a multi-disk environment. It would have been obvious to use the RAID-5 system in Griffith to gain the benefit of parity data fault tolerance while maintaining the simultaneous access to all the disks of the array (Ridge, p. 329).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith, in view of Espy, in further view of Ridge, P. M., "The book of SCSI: A guide for Adventurers.", published 1995. As per claim 12, Griffith discloses the use of tiers to stripe data across the channels (Griffith, col. 15, lines 28-32). Griffith does not disclose this strip of data including parity information.

Ridge discloses a RAID-5 system in which data parity groups that are extended across a stripe including multiple disks so that each drive is responsible for a different data bit of the parity group (Ridge, p. 328, first paragraph).

It would have been to one skilled in the art at the time of the invention to implement the RAID-5 system of Ridge and it's associated parity bits in the tiered stripes of the RAID system of Griffith and Espy.

This would have been obvious because Griffith teaches of a RAID system with a preferred number of disks being 5 (Griffith, col. 5, lines 23-35). Ridge discloses that the RAID-5 system preferably uses 5 disks and is useful in a multi-disk environment. It would have been obvious to use the RAID-5 system in combination with Griffith and Espy to gain the benefit of parity data fault tolerance while maintaining the simultaneous access to all the disks of the array (Ridge, p. 329).

Claims 13 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith, in view of Espy, in further view of Coale et al., United States Patent number 6,148,352, published November 14, 2000.

As per claim 13, Griffith fails to explicitly disclose the existence of a chassis for each controller and for the storage devices.

Espy discloses a chassis for a disk controller that presides over an array, this controller chassis having mounted in it only one controller (Espy, col. 5, lines 52-56). Espy discloses a mounting an array of storage devices in a loop that acts as the channel of Griffith, where the channel of storage devices is mounted on one or more than one chassis (Espy, col. 5, lines 59-62).

It would have been obvious to one skilled in the art at the time of the invention to include this chassis of Espy in the system of Griffith.

This would have been obvious because Griffith discloses a desire to use a standard, off-the-shelf RAID controller and direct access storage devices (Griffith, col. 8, lines 38-42). Any typical controller or storage device, such as that used by Griffith, would obviously benefit from being implemented in a typical situation in which no special considerations would be necessary for interoperability. Espy discloses a system that utilizes the typical chassis system for housing the array and controllers (Espy, col. 1, liens 34-55). It is obviously beneficial to use a typical layout to allow easier implementation.

Griffith and Espy teach of storage chassis that include controllers and storage device, however they both fail to teach of a rack supporting the horizontal elements that each supports either a controller chassis or a direct access storage device chassis.

Coale discloses a rack, the rack comprised of vertical and horizontal elements, the horizontal elements arrayed between and supported by the vertical elements, each horizontal element supporting a storage chassis (Coale, col. 1, lines 57-62).

It would have been obvious to one skilled in the art at the time of the invention to implement the chassis of Espy and Griffith in the rack of Coale.

This would have been obvious because Espy discloses a desire to have storage arrays and controllers in various chassis devices, and have the system able to be upgraded by adding more devices (Espy, col. 1, lines 35-46). Coale provides an obvious, simple means to increase storage capacity as desired by Espy (Coale, col. 1, lines 40-62).

As per claim 27, Griffith and Espy teach of storage chassis that include controllers and storage device, however they both fail to teach of a rack supporting the horizontal elements that each supports either a controller chassis or a direct access storage device chassis.

Coale discloses a rack, the rack comprised of vertical and horizontal elements, the horizontal elements arrayed between and supported by the vertical elements, each horizontal element supporting a storage chassis (Coale, col. 1, lines 57-62).

It would have been obvious to one skilled in the art at the time of the invention to implement the chassis of Espy and Griffith in the rack of Coale.

This would have been obvious because Espy discloses a desire to have storage arrays and controllers in various chassis devices, and have the system able to be upgraded by adding more devices (Espy, col. 1, lines 35-46). Coale provides an obvious, simple means to increase storage capacity as desired by Espy (Coale, col. 1, lines 40-62).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided on attached form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A Lohn whose telephone number is (703) 305-3188, until October 15, 2004, after which time the examiner can be reached at telephone number (571) 272-3661. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoleil can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAL

SCOTT BADERMAN
PRIMARY EXAMINER